

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-16 were pending in this application. Claims 7-16 are withdrawn. Claims 1, 3 and 6 have been amended hereby and new claims 17-19 have been added. No new matter has been added. After entry of this Amendment, claims 1-19 will be pending. For the reasons stated below, Applicants respectfully submit that all claims pending in this application are in condition for allowance.

Claims 1-6 were rejected under 35 U.S.C. § 102(b) based on U.S. Patent No. 5,033,092 to Sadaie. To the extent this rejection might still be applied to claims presently pending in this application, it is respectfully traversed.

Sadaie does not anticipate claim 1 because the cited portions of Sadaie do not disclose, teach, or suggest an audio signal processing circuit comprising a phase difference control portion wherein, *inter alia*, the left sound source and the right sound are positioned substantially the same distances from the listener such that the produced relative phase difference occurs at the location of the listener. Claims 3 and 6 recite similar language and are likewise patentable for at least the following reasons.

Sadaie discloses *producing* a relative phase difference between right and left speakers in an asymmetric environment (e.g., a car) to account for spatial propagation lag so that there is *no phase difference at the location of the listener* at a particular position (i.e., the driver's seat). At another position of interest, the passenger seat, the produced phase difference is such that a listener at that position experiences a phase shift of 2 radians, or 360 degrees (col. 5, lines 18-24

of Sadaie). Naturally, the result of a 360 degree phase difference is that the sound signals are in phase and are advantageously combined due to phase cyclicity. As stated in column 5, lines 24-26 of Sadaie, "a desired sound image localization is secured *at both the driver's seat and passenger seat*" (emphasis added). Accordingly, the point of the disclosure of Sadaie is to have no phase difference whatsoever at the location of the listener.

In contrast, the point of the claimed invention is to produce a relative phase difference such that the phase difference occurs at the location of user. Each of the independent claims recite that a relative phase difference is produced in the range of 140 degrees to 160 degrees and that such produced relative phase difference occurs at the location of the user. While Sadaie mentions that the phase difference between the two output signals *at their source* may be between 120 and 180 degrees, the phase difference is specifically taught to be zero (or an integer multiple of 360 degrees) *at the location of the listener*.

Further, Sadaie provides no disclosure, teaching, or suggestion as to what the phase difference, if any, might be at the location of a listener seated in the middle of the back seat (as proposed by the Examiner) or, for that matter, at a listener at any location but the driver's seat and the passenger seat. Since the phase of the respective signals of Sadaie are taught to be controlled as a function of the signal frequency and since the system only refers to localizing the sound image at the location of listeners in the driver's seat and the passenger seat, the relative phase difference, if any, at the location of a listener in the middle of the back seat is entirely unknown. Without such disclosure, Sadaie cannot anticipate the claims.

Claims 2, 4, 5, and 17-19 are patentable over Sadaie at least by virtue of their dependency from claims 1, 3, and 6, and for the additional features recited therein. Support for a

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monophonic phase difference controller can be found throughout the specification; for example, on page 9, lines 4-7; page 10, lines 12-14; and page 21, lines 11-20. The disclosure of Sadaie refers exclusively to stereophonic sound and therefore does not anticipate claims 17-19 for at least this reason.

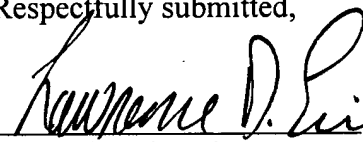
In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

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